

## SEQUENCE LISTING

<110> Natestch Pharmaceutical Company Inc.

Quay, Steven C.

Brandt, Gordon

Kleppe, Mary S.

MacEvilly, Conor J.

<120> COMPOSITIONS AND METHODS FOR ENHANCED  
MUCOSAL DELIVERY OF Y2 RECEPTOR-BINDING PEPTIDES AND METHODS  
FOR TREATING AND PREVENTING OBESITY

<130> 02-04CIP3

<150> US 10/745,069

<151> 2003-12-23

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<160> 105

<170> FastSEQ for Windows Version 4.0

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Tyr Pro Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu

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Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr

20 25 30

Arg Gln Arg Tyr

35

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<213> Homo sapiens

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Ile Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn

1 5 10 15

Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln

20 25 30

Arg Tyr

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<212> PRT

<213> Homo sapiens

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Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr

1 5 10 15

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Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn Arg

1 5 10 15

Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln Arg

20 25 30

Tyr

<210> 5

<211> 32

<212> PRT

<213> Homo sapiens

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Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn Arg Tyr

1 5 10 15

Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr

20 25 30

<210> 6

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<400> 6

Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn Arg Tyr Tyr

1            5            10            15  
Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr  
20            25            30

<210> 7  
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<213> Homo sapiens

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Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn Arg Tyr Tyr Ala  
1            5            10            15  
Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr  
20            25            30

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<213> Homo sapiens

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Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn Arg Tyr Tyr Ala Ser  
1            5            10            15  
Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr  
20            25

<210> 9  
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<213> Homo sapiens

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Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn Arg Tyr Tyr Ala Ser Leu  
1            5            10            15  
Arg His Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr  
20            25

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<213> Homo sapiens

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Glu Asp Ala Ser Pro Glu Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg  
1            5            10            15  
His Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr  
20            25

<210> 11  
<211> 26

<212> PRT

<213> Homo sapiens

<400> 11

Asp Ala Ser Pro Glu Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His

1 5 10 15  
Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr  
20 25

<210> 12

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<212> PRT

<213> Homo sapiens

<400> 12

Ala Ser Pro Glu Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr

1 5 10 15  
Leu Asn Leu Val Thr Arg Gln Arg Tyr  
20 25

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<211> 24

<212> PRT

<213> Homo sapiens

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Ser Pro Glu Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu

1 5 10 15  
Asn Leu Val Thr Arg Gln Arg Tyr  
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<210> 14

<211> 23

<212> PRT

<213> Homo sapiens

<400> 14

Pro Glu Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn

1 5 10 15  
Leu Val Thr Arg Gln Arg Tyr  
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<211> 22

<212> PRT

<213> Homo sapiens

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Glu Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu

1 5 10 15  
Val Thr Arg Gln Arg Tyr

&lt;210&gt; 16

&lt;211&gt; 21

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 16

Glu Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val

1 5 10 15

Thr Arg Gln Arg Tyr

20

&lt;210&gt; 17

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 17

Leu Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr

1 5 10 15

Arg Gln Arg Tyr

20

&lt;210&gt; 18

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 18

Asn Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg

1 5 10 15

Gln Arg Tyr

&lt;210&gt; 19

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 19

Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln

1 5 10 15

Arg Tyr

&lt;210&gt; 20

&lt;211&gt; 17

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln Arg  
1 5 10 15  
Tyr

<210> 21

<211> 16

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<213> Homo sapiens

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Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln Arg Tyr  
1 5 10 15

<210> 22

<211> 36

<212> PRT

<213> Homo sapiens

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Tyr Pro Ser Lys Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp  
1 5 10 15  
Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr  
20 25 30  
Arg Gln Arg Tyr  
35

<210> 23

<211> 11

<212> PRT

<213> Homo sapiens

<400> 23

His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
1 5 10

<210> 24

<211> 34

<212> PRT

<213> Homo sapiens

<400> 24

Ser Lys Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp Met Ala  
1 5 10 15  
Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln  
20 25 30  
Arg Tyr

<210> 25  
<211> 33  
<212> PRT  
<213> Homo sapiens

<400> 25  
Lys Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp Met Ala Arg  
1 5 10 15  
Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg  
20 25 30  
Tyr

<210> 26  
<211> 32  
<212> PRT  
<213> Homo sapiens

<400> 26  
Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr  
1 5 10 15  
Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
20 25 30

<210> 27  
<211> 31  
<212> PRT  
<213> Homo sapiens

<400> 27  
Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr Tyr  
1 5 10 15  
Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
20 25 30

<210> 28  
<211> 30  
<212> PRT  
<213> Homo sapiens

<400> 28  
Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr Tyr Ser  
1 5 10 15  
Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
20 25 30

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<213> Homo sapiens

<400> 29  
 Pro Gly Glu Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr Tyr Ser Ala  
 1 5 10 15  
 Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
 20 25

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<400> 30  
 Gly Glu Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr Tyr Ser Ala Leu  
 1 5 10 15  
 Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
 20 25

<210> 31  
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 <213> Homo sapiens

<400> 31  
 Glu Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr Tyr Ser Ala Leu Arg  
 1 5 10 15  
 His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
 20 25

<210> 32  
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<400> 32  
 Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr Tyr Ser Ala Leu Arg His  
 1 5 10 15  
 Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
 20 25

<210> 33  
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 <213> Homo sapiens

<400> 33  
 Ala Pro Ala Glu Asp Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr  
 1 5 10 15  
 Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
 20 25



<210> 34  
<211> 24  
<212> PRT  
<213> Homo sapiens

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Pro Ala Glu Asp Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile  
1 5 10 15  
Asn Leu Ile Thr Arg Gln Arg Tyr  
20

<210> 35  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 35  
Ala Glu Asp Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn  
1 5 10 15  
Leu Ile Thr Arg Gln Arg Tyr  
20

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<213> Homo sapiens

<400> 36  
Glu Asp Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu  
1 5 10 15  
Ile Thr Arg Gln Arg Tyr  
20

<210> 37  
<211> 21  
<212> PRT  
<213> Homo sapiens

<400> 37  
Asp Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile  
1 5 10 15  
Thr Arg Gln Arg Tyr  
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<210> 38  
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<212> PRT  
<213> Homo sapiens

<400> 38

Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr  
1 5 10 15  
Arg Gln Arg Tyr  
20

<210> 39  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 39  
Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg  
1 5 10 15  
Gln Arg Tyr

<210> 40  
<211> 18  
<212> PRT  
<213> Homo sapiens

<400> 40  
Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln  
1 5 10 15  
Arg Tyr

<210> 41  
<211> 17  
<212> PRT  
<213> Homo sapiens

<400> 41  
Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg  
1 5 10 15  
Tyr

<210> 42  
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<212> PRT  
<213> Homo sapiens

<400> 42  
Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
1 5 10 15

<210> 43  
<211> 15  
<212> PRT

<213> Homo sapiens

<400> 43

Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
1 5 10 15

<210> 44

<211> 14

<212> PRT

<213> Homo sapiens

<400> 44

Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
1 5 10

<210> 45

<211> 13

<212> PRT

<213> Homo sapiens

<400> 45

Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
1 5 10

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<212> PRT

<213> Homo sapiens

<400> 46

Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
1 5 10

<210> 47

<211> 36

<212> PRT

<213> Homo sapiens

<400> 47

Ala Ser Leu Glu Pro Glu Tyr Pro Gly Asp Asn Ala Thr Pro Glu Gln  
1 5 10 15  
Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr  
20 25 30  
Arg Pro Arg Tyr  
35

<210> 48

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<212> PRT

<213> Homo sapiens

<400> 48

Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr

1 5 10

<210> 49

<211> 34

<212> PRT

<213> Homo sapiens

<400> 49

Leu Glu Pro Glu Tyr Pro Gly Asp Asn Ala Thr Pro Glu Gln Met Ala

1 5 10 15

Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro

20 25 30

Arg Tyr

<210> 50

<211> 33

<212> PRT

<213> Homo sapiens

<400> 50

Glu Pro Glu Tyr Pro Gly Asp Asn Ala Thr Pro Glu Gln Met Ala Gln

1 5 10 15

Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg

20 25 30

Tyr

<210> 51

<211> 32

<212> PRT

<213> Homo sapiens

<400> 51

Pro Glu Tyr Pro Gly Asp Asn Ala Thr Pro Glu Gln Met Ala Gln Tyr

1 5 10 15

Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr

20 25 30

<210> 52

<211> 31

<212> PRT

<213> Homo sapiens

<400> 52

Glu Tyr Pro Gly Asp Asn Ala Thr Pro Glu Gln Met Ala Gln Tyr Ala

1 5 10 15

Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr

20 25 30

<210> 53  
<211> 30  
<212> PRT  
<213> Homo sapiens

<400> 53  
Tyr Pro Gly Asp Asn Ala Thr Pro Glu Gln Met Ala Gln Tyr Ala Ala  
1 5 10 15  
Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr  
20 25 30

<210> 54  
<211> 29  
<212> PRT  
<213> Homo sapiens

<400> 54  
Pro Gly Asp Asn Ala Thr Pro Glu Gln Met Ala Gln Tyr Ala Ala Glu  
1 5 10 15  
Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr  
20 25

<210> 55  
<211> 28  
<212> PRT  
<213> Homo sapiens

<400> 55  
Gly Asp Asn Ala Thr Pro Glu Gln Met Ala Gln Tyr Ala Ala Glu Leu  
1 5 10 15  
Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr  
20 25

<210> 56  
<211> 27  
<212> PRT  
<213> Homo sapiens

<400> 56  
Asp Asn Ala Thr Pro Glu Gln Met Ala Gln Tyr Ala Ala Glu Leu Arg  
1 5 10 15  
Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr  
20 25

<210> 57  
<211> 26  
<212> PRT  
<213> Homo sapiens

<400> 57

Asn Ala Thr Pro Glu Gln Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg  
1 5 10 15  
Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr  
20 25

<210> 58

<211> 25

<212> PRT

<213> Homo sapiens

<400> 58

Ala Thr Pro Glu Gln Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr  
1 5 10 15  
Ile Asn Met Leu Thr Arg Pro Arg Tyr  
20 25

<210> 59

<211> 24

<212> PRT

<213> Homo sapiens

<400> 59

Thr Pro Glu Gln Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile  
1 5 10 15  
Asn Met Leu Thr Arg Pro Arg Tyr  
20

<210> 60

<211> 23

<212> PRT

<213> Homo sapiens

<400> 60

Pro Glu Gln Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn  
1 5 10 15  
Met Leu Thr Arg Pro Arg Tyr  
20

<210> 61

<211> 22

<212> PRT

<213> Homo sapiens

<400> 61

Glu Gln Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met  
1 5 10 15  
Leu Thr Arg Pro Arg Tyr  
20

<210> 62  
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<212> PRT  
<213> Homo sapiens

<400> 62  
Gln Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu  
1 5 10 15  
Thr Arg Pro Arg Tyr  
20

<210> 63  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 63  
Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr  
1 5 10 15  
Arg Pro Arg Tyr  
20

<210> 64  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 64  
Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg  
1 5 10 15  
Pro Arg Tyr

<210> 65  
<211> 18  
<212> PRT  
<213> Homo sapiens

<400> 65  
Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro  
1 5 10 15  
Arg Tyr

<210> 66  
<211> 17  
<212> PRT  
<213> Homo sapiens

<400> 66

Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg  
1 5 10 15  
Tyr

<210> 67  
<211> 16  
<212> PRT  
<213> Homo sapiens

<400> 67  
Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr  
1 5 10 15

<210> 68  
<211> 15  
<212> PRT  
<213> Homo sapiens

<400> 68  
Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr  
1 5 10 15

<210> 69  
<211> 14  
<212> PRT  
<213> Homo sapiens

<400> 69  
Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr  
1 5 10

<210> 70  
<211> 13  
<212> PRT  
<213> Homo sapiens

<400> 70  
Leu Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr  
1 5 10

<210> 71  
<211> 12  
<212> PRT  
<213> Homo sapiens

<400> 71  
Arg Arg Tyr Ile Asn Met Leu Thr Arg Pro Arg Tyr  
1 5 10



<210> 72  
<211> 36  
<212> PRT  
<213> Rat

<400> 72  
Tyr Pro Ala Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu  
1 5 10 15  
Leu Ser Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr  
20 25 30  
Arg Gln Arg Tyr  
35

<210> 73  
<211> 36  
<212> PRT  
<213> Pig

<400> 73  
Tyr Pro Ala Lys Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu  
1 5 10 15  
Leu Ser Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr  
20 25 30  
Arg Gln Arg Tyr  
35

<210> 74  
<211> 36  
<212> PRT  
<213> Guinea pig

<400> 74  
Tyr Pro Ser Lys Pro Glu Ala Pro Gly Ser Asp Ala Ser Pro Glu Glu  
1 5 10 15  
Leu Ala Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr  
20 25 30  
Arg Gln Arg Tyr  
35

<210> 75  
<211> 36  
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<213> Rat

<400> 75  
Tyr Pro Ser Lys Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp  
1 5 10 15  
Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr  
20 25 30  
Arg Gln Arg Tyr  
35

<210> 76  
<211> 36  
<212> PRT  
<213> Rabbit

<400> 76  
Tyr Pro Ser Lys Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp  
1 5 10 15  
Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr  
20 25 30  
Arg Gln Arg Tyr  
35

<210> 77  
<211> 36  
<212> PRT  
<213> Dog

<400> 77  
Tyr Pro Ser Lys Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp  
1 5 10 15  
Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr  
20 25 30  
Arg Gln Arg Tyr  
35

<210> 78  
<211> 36  
<212> PRT  
<213> Pig

<400> 78  
Tyr Pro Ser Lys Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp  
1 5 10 15  
Leu Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr  
20 25 30  
Arg Gln Arg Tyr  
35

<210> 79  
<211> 36  
<212> PRT  
<213> Cow

<400> 79  
Tyr Pro Ser Lys Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp  
1 5 10 15  
Leu Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr  
20 25 30  
Arg Gln Arg Tyr

&lt;210&gt; 80

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Sheep

&lt;400&gt; 80

Tyr Pro Ser Lys Pro Asp Asn Pro Gly Asp Asp Ala Pro Ala Glu Asp  
 1 5 10 15  
 Leu Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr  
 20 25 30  
 Arg Gln Arg Tyr  
 35

&lt;210&gt; 81

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Guinea pig

&lt;400&gt; 81

Tyr Pro Ser Lys Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp  
 1 5 10 15  
 Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr  
 20 25 30  
 Arg Gln Arg Tyr  
 35

&lt;210&gt; 82

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Sheep

&lt;400&gt; 82

Ala Pro Leu Glu Pro Val Tyr Pro Gly Asp Asn Ala Thr Pro Glu Gln  
 1 5 10 15  
 Met Ala Gln Tyr Ala Ala Asp Leu Arg Arg Tyr Ile Asn Met Leu Thr  
 20 25 30  
 Arg Pro Arg Tyr  
 35

&lt;210&gt; 83

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Pig

&lt;400&gt; 83

Ala Pro Leu Glu Pro Val Tyr Pro Gly Asp Asp Ala Thr Pro Glu Gln  
 1 5 10 15  
 Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr  
 20 25 30

Arg Pro Arg Tyr  
35

<210> 84  
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<400> 84  
Ala Pro Leu Glu Pro Val Tyr Pro Gly Asp Asp Ala Thr Pro Glu Gln  
1 5 10 15  
Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr  
20 25 30  
Arg Pro Arg Tyr  
35

<210> 85  
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<213> Cat

<400> 85  
Ala Pro Leu Glu Pro Val Tyr Pro Gly Asp Asn Ala Thr Pro Glu Gln  
1 5 10 15  
Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr  
20 25 30  
Arg Pro Arg Tyr  
35

<210> 86  
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<400> 86  
Ala Pro Leu Glu Pro Glu Tyr Pro Gly Asp Asp Ala Thr Pro Glu Gln  
1 5 10 15  
Met Ala Gln Tyr Ala Ala Glu Leu Arg Arg Tyr Ile Asn Met Leu Thr  
20 25 30  
Arg Pro Arg Tyr  
35

<210> 87  
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<400> 87  
Ala Pro Leu Glu Pro Met Tyr Pro Gly Asp Tyr Ala Thr His Glu Gln  
1 5 10 15  
Arg Ala Gln Tyr Glu Thr Gln Leu Arg Arg Tyr Ile Asn Thr Leu Thr

20 25 30  
Arg Pro Arg Tyr  
35

<210> 88  
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<400> 88  
Ala Pro Leu Glu Pro Met Tyr Pro Gly Asp Tyr Ala Thr Pro Glu Gln  
1 5 10 15  
Met Ala Gln Tyr Glu Thr Gln Leu Arg Arg Tyr Ile Asn Thr Leu Thr  
20 25 30  
Arg Pro Arg Tyr  
35

<210> 89  
<211> 37  
<212> PRT  
<213> Guinea pig

<400> 89  
Ala Pro Leu Glu Pro Val Tyr Pro Gly Asp Asn Ala Thr Pro Glu Gln  
1 5 10 15  
Gln Met Ala Gln Tyr Ala Ala Glu Met Arg Arg Tyr Ile Asn Met Leu  
20 25 30  
Thr Arg Pro Arg Tyr  
35

<210> 90  
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<400> 93  
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<400> 94  
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<212> PRT

<213> Homo sapiens

<400> 98

Arg Pro Glu Ala Pro Gly Glu Asp Ala Ser Pro Glu Glu Leu Asn Arg  
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<212> PRT

<213> Homo sapiens

<400> 99

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<211> 34

<212> PRT

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<400> 101  
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<400> 102  
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<400> 104  
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20 25 30  
Tyr

<210> 105

<211> 34

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<213> Homo sapeins

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1 5 10 15

Arg Tyr Tyr Ala Ser Leu Arg His Tyr Leu Asn Leu Val Thr Arg Gln

20 25 30

Arg Tyr